The results of the above analysis, including a narrative discussion, shall be included in each semiannual report and summarized in the Annual Report, as specified under Section F.2 below. The semiannual monitoring reports shall also include a discussion of the progress of corrective action toward returning to compliance with the WQPS, as specified in Section 20430(h) of Title 27.

E. SURFACE WATER MONITORING (Section 20415(c))

Storm water shall be monitored at an appropriate background location and at representative outfalls toward the nearest surface water (i.e., Lake Natoma) in accordance with the NPDES General Storm Water Permit (Construction Activities or Industrial). The storm water monitoring locations shall include the following monitoring points (Attachment B: Site Map):

Monitoring Point	Storm Water Type	Drain	Location
SW-1	Runon	Upstream swale	NE of landfill
SW-2	Runoff	Landfill perimeter swale	NW outfall
SW-3	Runoff	Landfill perimeter swale	SW outfall

Storm water sampling shall include the semiannual field and monitoring parameters specified in Table D.3.c and those parameters required under the General Storm Water Permit. If the landfill units are clean closed in compliance with WDRs Order No. R5-2008-0106 and with Regional Water Board staff concurrence, sampling of Table D.3.c constituents shall no longer be required under this Order (sampling may still be required under the General Storm Water Permit, however, if the site has not yet been backfilled and/or reclaimed).

F. REPORTING

1. **Semiannual Reports**
   The Discharger shall report monitoring data and information as required in this MRP and as required under WDRs Order No. R5-2008-0106 and the SPRR. Reports shall be submitted **semiannually**. Each semiannual monitoring report shall include the following information:

   a. A compliance evaluation summary for the monitoring period as specified in the SPRR (Requirement 2, *Reports to be Filed with the Board, REPORTING REQUIREMENTS*).

   b. A tabular summary of well information from the installation logs, including well name, top-of-casing elevation, total depth, depths/elevations of screened interval, aquifer or zone (i.e. uppermost), and soil type(s) over the screened interval.

   c. The results of groundwater elevation monitoring.

d. Tabular summaries of corrective action monitoring data for the monitoring period, showing sampling date, well, constituents, concentrations, units, and concentration limits. The table shall also clearly show whether new monitoring data exceedances occurred during the monitoring period (i.e. highlight exceedances).

e. Tables of historical monitoring data, as available, for each waste management unit (or former waste management unit, if clean closed), showing well, sampling dates, constituents, concentrations, units, and concentration limits. The data shall be presented so as to clearly show historical concentrations at each well.

f. Plots, graphical summaries and a narrative discussion of the results of correction action monitoring, as specified in Section D.3.d herein.

g. Field and laboratory tests sheets.

h. An electronic copy of historical analytical data for at least the previous five years, as available, in a digital format necessary for statistical analysis (e.g., Excel format).

2. **Annual Monitoring Summary Report**
An Annual Monitoring Summary Report (Annual Report) shall also be prepared and submitted in accordance with this section of the MRP and the SPRR (Requirement 4, *Reports to be Filed with the Board, REPORTING REQUIREMENTS*). The report shall summarize monitoring results for the prior year and include a discussion of compliance with the WDRs and the WQPS. The report may be included in the Second Semiannual Report for each year, but shall also include the following:

a. Tabular and graphical summaries of the results of the prior year, including, but not necessarily limited to, representative time series plots and contaminant contour maps.

b. A summary of the results of trend analysis performed on each constituent of the release during the prior year.

c. A summary of the results of water chemistry analysis of water quality data collected during the prior year.

d. A summary of comparisons of contaminant contour maps of representative constituents/parameters with those of prior years to track changes in plume and/or groundwater geochemical conditions since initiation of corrective action.

e. A copy of the Sampling and Analysis Plan per WDR Monitoring Specification E.5 and the SPRR (Requirement 1, *Provisions for Monitoring*).

Reports that do not comply with the above-required format will be **REJECTED** and the Discharger shall be deemed to be in noncompliance with the waste discharge requirements.

The semiannual and annual reports shall be submitted to the Board in accordance with the following schedule for the calendar period in which samples were taken or observations made:

Table F

Report	End of Reporting Period	Date Report Due
First Semiannual	30 June	**31 July**
Second Semiannual	31 December	**31 January**
Annual Report	31 December	**31 January**

The Discharger shall implement the above monitoring program on the effective date of this Program. The transmittal letter accompanying monitoring reports submitted under this Order shall, as required under the SPRR (*Provision 5, General Requirements, REPORTING REQUIREMENTS*), contain a statement by the discharger, or the discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate and complete.

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

31 July 2008
(Date)

Attachments
JDM: 31 July 2008

Table G.1
INORGANIC CONSTITUENTS OF CONCERN, APPROVED USEPA ANALYTICAL METHODS, & CONCENTRATION LIMITS

	USEPA Test Method	Concentration Limit
Field Parameters		
Groundwater Elevation, Ft MSL	----	----
pH, pH units	----	<6, >8
Oxidation-Reduction (Redox) Potential, Millivolts	----	----
Specific conductance, µMhos/cm	----	550
Temperature, ^{O}C, ^{O}F	----	----
Turbidity, NTU	----	----
General Minerals, mg/L		
Total Dissolved Solids (TDS)	2540C	354
Total Alkalinity	2320B	250
Total Hardness	2340B	
Chemical Oxygen Demand (COD)	410.4	
Major Anions		
Bicarbonate	2310B	250
Chloride	300	60
Nitrate – Nitrogen	300	60
Sulfate	300	57
Major Cations		
Calcium	200.7/6010	----
Magnesium	200.7/6010	----
Potassium	200.7/6010	----
Sodium	200.7/6010	----
Dissolved Metals, µg/L[1]		
Aluminum	200.7/6010	MDL
Antimony	200.7/6010	MDL
Arsenic	200.9/200.8	4.6
Barium	200.7/6010	MDL
Beryllium	200.7/6010	MDL
Cadmium	200.7/6010	MDL
Chromium	200.7/6010	10
Hexavalent Chromium	7199/1636	MDL
Cobalt	200.7/6010	MDL
Copper	200.7/6010	MDL

Table G.1

Cyanide	335.4/9010	MDL
Iron	200.9/200.8	93
Lead	200.9/200.8	5
Manganese	200.7/6010	MDL
Mercury	7470A	0.2
Molybdenum	200.7/6010	MDL
Nickel	200.9/200.8	MDL
Selenium	200.9/200.8	MDL
Silver	200.7/6010	MDL
Sulfide	9030	MDL
Thallium	200.7/6010	MDL
Tin	200.7/6010	MDL
Vanadium	200.7/6010	MDL
Zinc	200.7/6010	MDL

1. Samples shall be filtered prior to performing dissolved inorganics analysis.

Table G.2
ORGANIC CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS
(CONCENTRATION LIMIT = MDL)

Volatile Organic Compounds (VOCs)[1] (USEPA Method 8260B)

Acetone
Acetonitrile
Acrolein
Acrylonitrile
Allyl chloride (3-Chloropropene)
Tert-Amyl methyl ether
Benzene
Bromobenzene
Bromochloromethane
Bromodichloromethane
Bromoform (Tribromomethane)
Tert-Butyl alcohol
n-Butlybenzene
sec-Butlybenzene
tert-Butlybenzene
tert-Butyl ethyl ether
Carbon disulfide
Carbon tetrachloride

Table G.2

Chlorobenzene
Chloroethane (Ethyl chloride)
Chloroform (Trichloromethane)
Chloroprene
Dibromochloromethane (Chlorodibromomethane)
1,2-Dibromo-3-chloropropane (DBCP)
1,2-Dibromoethane (Ethylene dibromide; EDB)
o-Dichlorobenzene (1,2-Dichlorobenzene)
m-Dichlorobenzene (1,3-Dichlorobenzene)
p-Dichlorobenzene (1,4-Dichlorobenzene)
trans- l ,4-Dichloro-2-butene
Dichlorodifluoromethane (CFC-12)
1,1-Dichloroethane (Ethylidene chloride)
1,2-Dichloroethane (Ethylene dichloride)
1,1-Dichloroethylene (1,1-Dichloroethene; Vinylidene chloride)
cis- 1,2-Dichloroethylene (cis- 1,2-Dichloroethene)
trans-1,2-Dichloroethylene (trans-1,2-Dichloroethene)
1,2-Dichloropropane (Propylene dichloride)
1,3-Dichloropropane
2,2-Dichloropropene
1,1-Dichloropropene
cis- 1,3-Dichloropropene
trans- 1,3-Dichloropropene
Ethylbenzene
Ethyl methacrylate
Hexachlorobutadiene
Hexachloroethane
2-Hexanone (Methyl butyl ketone)
Iodomethane (Methyl iodide)
Isobutyl alcohol
di-Isopropyl ether
Methacrylonitrile
Methyl bromide (Bromomethene)
Methylene bromide (Dibromomethane)
Methylene chloride (Dichloromethane)
Methyl chloride (Chloromethane)
Methyl ethyl ketone (MEK: 2-Butanone)
4-Methyl-2-pentanone (Methyl isobutylketone)
Methyl tert-butyl ether (MtBE)
Naphthalene
2-Nitropropane

Table G.2

n-Propylbenzene
Propionitrile
Styrene
1,1,1,2-Tetrachloroethane
1,1.2,2-Tetrachloroethane
Tetrachloroethylene (Tetrachloroethene; Perchloroethylene)
Toluene
1,2,4-Trichlorobenzene
1,1,1-Trichloethane (Methylchloroforrn)
1,1,2-Trichloroethane
Trichloroethylene (Trichloroethene)
Trichlorofluoromethane (CFC- 11)
1,2,3-Trichloropropane
1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
Vinyl chloride
Xylenes (total)

Semi-VOCs[1] (USEPA Method 8270 - base, neutral, & acid extractables):
Acenaphthene
Acenaphthylene
Acetophenone
2-Acetylaminofluorene (2-AAF)
4-Aminobiphenyl
Anthracene
Benzo[a]anthracene (Benzanthracene)
Benzo[b]fluoranthene
Benzo[k]fluoranthene
Benzo[g,h,i]perylene
Benzo[a]pyrene
Benzyl alcohol
Bis(2-ethylhexyl) phthalate
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl) ether (Dichloroethyl ether)
Bis(2-chloro-1-methyethyl) ether (Bis(2-chloroisopropyl) ether; DCIP)
4-Bromophenyl phenyl ether
Butyl benzyl phthalate (Benzyl butyl phthalate)
p-Chloroaniline
p-Chloro-m-cresol (4-Chloro-3-methylphenol)
2-Chloronaphthalene
2-Chlorophenol
4-Chlorophenyl phenyl ether
Chrysene
o-Cresol (2-methylphenol)
m-Cresol (3-methylphenol)

Table G.2

p-Cresol (4-methylphenol)
Dibenz[a,h]anthracene
Dibenzofuran
Di-n-butyl phthalate
3,3'-Dichlorobenzidine
2,4-Dichlorophenol
2,6-Dichlorophenol
Diethyl phthalate
p-(Dimethylamino)azobenzene
7,12-Dimethylbenz[a]anthracene
3,3'-Dimethylbenzidine
2,4-Dimehtylphenol (m-Xylenol)
Dimethyl phthalate
m-Dinitrobenzene
4,6-Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Di-n-octyl phthalate
Diphenylamine
Ethyl methanesulfonate
Famphur
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachloropropene
Indeno(1,2,3-c,d)pyrene
Isophorone
Isosafrole
Kepone
Methapyrilene
3-Methylcholanthrene
Methyl methanesulfonate
2-Methylnaphthalene
1,4-Naphthoquinone
1-Naphthylamine
2-Naphthylamine
o-Nitroaniline (2-Nitroaniline)
m-Nitroaniline (3-Nitroaniline)
p-Nitroaniline (4-Nitroaniline)
Nitrobenzene
o-Nitrophenol (2-Nitrophenol)
p-Nitrophenol (4-Nitrophenol)
N-Nitrosodi-n-butylamine (Di-n-butylnitrosamine)
N-Nitrosodiethylamine (Diethylnitrosamine)
N-Nitrosodimethylamine (Dimethylnitrosamine)
N-Nitrosodiphenylamine (Diphenylnitrosamine)

Table G.2

N-Nitrosodipropylamine (N-Nitroso-N-dipropylamine; Di-n-propylnitrosamine)
N-Nitrosomethylethylamine (Methylethylnitrosamine)
N-Nitrosopiperidine
N-Nitrosospyrrolidine
5-Nitro-o-toluidine
Pentachlorobenzene
Pentachloronitrobenzene (PCNB)
Pentachlorophenol
Phenacetin
Phenanthrene
Phenol
p-Phenylenediamine
Polychlorinated biphenyls (PCBs; Aroclors)
Pronamide
Pyrene
Safrole
1,2,4,5-Tetrachlorobenzene
2,3,4,6-Tetrachlorophenol
o-Toluidine
2,4,5-Trichlorophenol
0,0,0-Triethyl phosphorothioate
sym-Trinitrobenzene

Organochlorine Pesticides[1] (USEPA Method 8081A)
Aldrin
α-BHC
β-BHC
γ-BHC (Lindane)
δ-BHC
Chlorobenzilate
α-Chlordane
γ-Chlordane
Chlodane – not otherwise specified
DBCP
4,4'-DDD
4,4'-DDE
4,4'-DDT
Diallate
Dieldrin
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin
Endrin aldehyde
Endrin ketone
Heptachlor
Heptachlor epoxide

Table G.2

Hexachlorocyclopentadiene
Isodrin
Methoxychlor
Toxaphene

Polychlorinated Biphenols[1] (PCBs, USEPA Method 8082)
Aroclor 1016
Aroclor 1221
Aroclor 1232
Aroclor 1242
Aroclor 1248
Aroclor 1254
Aroclor 1260

Organophosphorus Pesticides[1] (USEPA Method 8141A):
Chlorpyrifos
Diazinon
Dimethioate
Disulfoton
Ethion
Famphur
Malathion
Parathion
Parathion-ethyl
Parathion-methyl
Phorate

Chlorinated Herbicides[1] (USEPA Method 8151A):
2,4-D (2,4-Dichlorophenoxyacetic acid)
Dicamba
Dinoseb (DNBP; 2-sec-Butyl-4,6-dinitrophenol)
MCPA
MCPP
Silvex (2,4,5-Trichlorophenoxypropionic acid; 2,4,5-TP)
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)
Pentachlorophenol

1. Unknown chromatographic peaks shall be reported, along with an estimate of the concentration of the unknown analyte per WDR Monitoring Specification G.13.

INFORMATION SHEET

ORDER NO. R5-2008-0106
CITY OF FOLSOM
FOLSOM CORPORATION YARD LANDFILL
SACRAMENTO COUNTY

The 3.2-acre Folsom Corporation Yard Landfill is a closed, Class III landfill on Leidesdorff Street near Lake Natoma in the City of Folsom. The unlined landfill was constructed in the ponds of the City's former wastewater treatment plant, which was demolished in 1973. The landfill operated from 1974 until 1987, accepting primarily street cleaning wastes, construction and demolition debris, and green wastes from City owned and/or operated facilities. The landfill stopped accepting wastes in 1987 and in 1996 was closed with a cover containing a low permeability clay layer in accordance with Chapter 15 (now Title 27), California Code of Regulations. A 1990 Solid Waste Assessment Test (SWAT) found elevated concentrations of general minerals and some dissolved metals in shallow groundwater at the site. Monitoring since landfill closure in 1996 has confirmed impacts to shallow groundwater from the landfill, including, for example, elevated total dissolved solids (634 mg/L), arsenic (20 µg/L) and dissolved iron (14,000 µg/L). Volatile organic compounds (VOCs), primarily methyl tert-butyl ether (MTBE, up to 20 µg/L) and low to trace concentrations of a few other VOCs have also been detected in a few wells.

To address the impacts to groundwater, and reduce postclosure monitoring costs, the Discharger is proposing to clean close the landfill and an adjacent 1.1-acre unclassified fill area (UFA) immediately south of the landfill. The Discharger's clean closure plan proposes that the landfill be closed in three phases, beginning with the UFA and proceeding northward with the lower and upper landfill deck areas. After excavation, the waste will be stockpiled onsite, sorted, and characterized for recycling or offsite disposal. While the Discharger expects to complete the project in the 2008 construction season, the plan includes contingency winterization measures in the event that construction extends into the wet season.

These WDRs incorporate the Discharger's clean closure plan and prescribe requirements for the project as a corrective action measure in accordance with Title 27 regulations. Discharge specifications specify cleanup goals for removal of landfill wastes and limit the amount of time any waste can remain onsite pending offsite disposal. The WDRs also require the Discharger to obtain coverage under the General Storm Water Permit and implement winterization measures to protect landfill facilities during the wet season. The WDRs also require that the Discharger provide updated cost estimates and financial assurances for any necessary cover repairs in the event the project is suspended for a significant period of time, or is not completed; and any additional corrective action that may ultimately be necessary to achieve compliance with the Water Quality Protection Standard (WQPS) The Discharger must provide these financial assurances in approved amounts and in an acceptable mechanism under Title 27. The WDRs (Construction Specification C.6) further require

that all clean closure construction activity be completed by 15 October 2009.

The monitoring and reporting program (MRP) in the WDRs specifies the WQPS, including concentration limits for groundwater cleanup derived from statistical analysis of historical background data at the site. The MRP requires semiannual groundwater monitoring for regularly detected constituents, including field parameters, general minerals, and specified dissolved metals (arsenic and iron); and annual monitoring for less frequently detected constituents, including VOCs, major anions and cations, and a longer list of dissolved metals. The MRP also has a proof period during which the Discharger must demonstrate compliance with the WQPS prior to termination of corrective action measures. The minimum proof period is one year and must include at least eight regular sampling events. The MRP also specifies a three-year compliance period (which may include the proof period) for demonstrating compliance with the WQPS prior to termination of monitoring.

Surface drainage in the site area is toward Lake Natoma, a part of the American River and tributary to the Sacramento River.